

*Via Facsimile 703-872-9306*

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### Remarks

The Office Action mailed July 23, 2004, has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1, 3-7, and 9-13 are now pending in this application. Claims 1, 3-7, and 9-13 stand rejected.

A fee calculation sheet is submitted herewith, and in accordance with 37 C.F.R. 1.136(a), a two month extension of time is submitted herewith to extend the due date of the response to the Office Action dated July 23, 2004, for the above-identified patent application from October 23, 2004, through and including December 23, 2004. In accordance with 37 C.F.R. 1.17(a)(2), authorization to charge a deposit account in the amount of \$450 to cover this extension of time request also is submitted herewith.

The rejection of Claims 1, 3-7 and 9-13 under 35 U.S.C. § 103 as being unpatentable over the combined teachings of Applicant's Figure 3 in view of Cherry et al. (US 5,119,802) ("Cherry") and Michaels (US 3,551,083) is respectfully traversed.

Cherry describes a cooking appliance (10) including an ignition circuit (60) for generating a spark at an electrode (49 or 50). Power supply lines (L1 and N) are coupled to a spark igniter module (62) via an isolation transformer (64). Additionally, the spark igniter module includes a plurality of outputs to the electrodes and a plurality of switches (65 and 66) for respective heating units (16 and 18).

Michaels describes an ignition system (40) having an igniter element (64) for igniting a burner (42). The ignition system includes an electrically operated valve (52) having a solenoid (54). The igniter element and the valve are controlled by a control circuit (70). Specifically, the igniter element and the valve are simultaneously energized by power supplied by power supply

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terminals (66 and 68). An isolation transformer (72) is positioned between the power supply terminals and the igniter module and valve.

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. Specifically, none of Applicant's Figure 3, Cherry, and Michaels, alone or in combination, describe or suggest connecting a ground conductor between an electrically isolated neutral conductor and a burner. Moreover, none of Applicant's Figure 3, Cherry and Michaels, alone or in combination, provide any incentive for making the claimed invention. In addition, the rejection appears to be based upon improperly using the specification of the present application as a template, and then improperly picking and choosing various features from the cited patent in an attempt to reconstruct the structures recited in the presently pending claims. For these reasons, Applicant respectfully requests that the Section 103 rejection be withdrawn.

Moreover, obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Applicant's Figure 3 according to the teachings of Cherry and Michaels. More specifically, it is respectfully submitted that a prima facie case of obviousness has not been established. As explained by the Federal Circuit, "to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant." In re Kotzab, 54 USPQ2d 1308, 1316 (Fed. Cir. 2000). MPEP 2143.01.

Moreover, the Federal Circuit has determined that:

[I]t is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

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In re Filch, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). Further, under Section 103, "it is impermissible . . . to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." In re Wesslau, 147 USPQ 391, 393 (CCPA 1965). Rather, there must be some suggestion, outside of Applicant's disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant's disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion nor motivation to combine the cited art, nor any reasonable expectation of success has been shown.

Although it is asserted within the Office Action that Applicant's Figure 3 teaches the present invention except for disclosing an isolation transformer and the details of this transformer structure and location, no motivation or suggestion to combine the cited art has been shown. Applicant respectfully submits that none of Applicant's Figure 3, Cherry, and Michaels, alone or in combination, describe or suggest connecting a ground conductor between an electrically isolated neutral conductor and a burner. Since there is no teaching nor suggestion in the cited art for the claimed combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant respectfully requests that the Section 103 rejection of Claims 1-12 be withdrawn.

Further, and to the extent understood, no combination of Applicant's Figure 3, Cherry, and Michaels, describes or suggests the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 1 recites a method for installing an ignition module for a flame burner to an electrical system, wherein the method includes "coupling the phase conductor and neutral conductor to a primary winding of the isolation transformer . . . connecting the electrically isolated phase conductor from the isolation transformer to the first input of the ignition module . . . connecting the electrically isolated neutral

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conductor from the isolation transformer to the second input of the ignition module...connecting a ground conductor between the electrically isolated neutral conductor and a burner...connecting the single output to an igniter."

None of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest the method recited in Claim 1. Moreover, none of Applicant's Figure 3, Cherry, and Michaels, alone or in combination, describe or suggest connecting an electrically isolated phase conductor from an isolation transformer to a first input of an ignition module, connecting an electrically isolated neutral conductor from the isolation transformer to a second input of the ignition module, and connecting a ground conductor between the electrically isolated neutral conductor and a burner. Rather, Applicant's Figure 3 illustrates a phase conductor and a neutral conductor connected directly to an ignition module, and a ground conductor connected to a junction box, Cherry describes a cooking appliance including an ignition circuit having power supply lines coupled to a spark igniter module, and a ground line coupled to the spark igniter module, however, Cherry does not describe, or even suggest, that the ground line is coupled to a burner, and Michaels merely describes an isolation transformer having a primary and secondary winding. Accordingly, Claim 1 is submitted to be patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claims 3-4, and 13 depend from independent Claim 1. When the recitations of Claims 3-4 are considered in combination with the recitations of Claim 1, Applicant respectfully submits that dependent Claims 3-4 are also patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claim 5 recites a method for installing an ignition module for a gas-fired burner to an isolation transformer of an electrical system, the isolation transformer including a primary winding and a secondary winding, the electrical system including a phase conductor, a neutral conductor and a ground conductor, the burner connected to the ground conductor, the ignition module including first and second inputs and at least one output. The method includes

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"connecting the transformer secondary winding to the first input of the ignition module...connecting the transformer secondary winding to the ground conductor...and connecting the second input of the ignition module to the ground conductor".

None of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest the method recited in Claim 5. Moreover, none of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest a method for installing an ignition module for a gas-fired burner to an isolation transformer of an electrical system that includes connecting a transformer secondary winding to a ground conductor and connecting the second input of an ignition module to the ground conductor, wherein the electrical system includes a ground conductor, and wherein the burner is connected to the ground conductor. Rather, Applicant's Figure 3 illustrates a phase conductor and a neutral conductor connected directly to an ignition module, and a ground conductor connected to a junction box, Cherry describes a cooking appliance including an ignition circuit having power supply lines coupled to a spark igniter module, and a ground line coupled to the spark igniter module, however, Cherry does not describe, or even suggest, that the ground line is coupled to a burner, and Michaels merely describes an isolation transformer having a primary and secondary winding. Accordingly, Claim 5 is submitted to be patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claim 6 depends from independent Claim 5. When the recitations of Claim 6 are considered in combination with the recitations of Claim 5, Applicant respectfully submits that dependent Claim 6 is also patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claim 7 recites an ignition system that includes "a burner for producing a flame...a power supply...an electrical system comprising a ground conductor coupled to said burner...an ignition module comprising a first input, a second input, and a single output, said output operatively coupled to said burner, one of said inputs coupled to said ground conductor, the other

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of said inputs coupled to said power supply...and an isolation transformer connected in series between said power supply and said ignition module".

None of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest an ignition system recited in Claim 7. Moreover, none of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest an electrical system comprising a ground conductor coupled to a burner, and an ignition module including a first input, a second input, and a single output, wherein the output is operatively coupled to a burner, one of the inputs is coupled to a ground conductor, and the other of the inputs is coupled to said power supply. Rather, Applicant's Figure 3 illustrates a phase conductor and a neutral conductor connected directly to an ignition module, and a ground conductor connected to a junction box, Cherry describes a cooking appliance including an ignition circuit having power supply lines coupled to a spark igniter module, and a ground line coupled to the spark igniter module, however, Cherry does not describe, or even suggest, that the ground line is coupled to a burner, and Michaels merely describes an isolation transformer having a primary and secondary winding. Accordingly, Claim 7 is submitted to be patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claims 9 and 10 depend from independent Claim 7. When the recitations of Claims 9 and 10 are considered in combination with the recitations of Claim 7, Applicant respectfully submits that dependent Claims 9 and 10 are also patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claim 11 recites an ignition system including "a gas burner...an AC power supply comprising a phase conductor and neutral conductor...an electrical system comprising a ground conductor coupled to said burner...an isolation transformer comprising a primary winding and a secondary winding, said primary winding connected to said phase conductor and to said neutral conductor, said secondary winding comprising an isolated phase conductor and an isolated neutral conductor...an ignition module comprising a first input, a second input, and an output,

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said output electrically connected to an igniter, said ignition module coupled in series with said isolation transformer, wherein one of said inputs coupled to said isolated neutral conductor, the other of said inputs coupled to said isolated phase conductor, said ground conductor coupled to said isolated neutral conductor between said ignition module and said isolation transformer.

None of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest the ignition system recited in Claim 11. Moreover, none of Applicant's Figure 3, Cherry, and Michaels, considered alone or in combination, describe or suggest an electrical system including a ground conductor coupled to a burner, and an ignition system that includes an ignition module coupled in series with an isolation transformer, wherein one of the ignition module inputs is coupled to an isolated neutral conductor, the other of the ignition module inputs is coupled to an isolated phase conductor, and the ground conductor is coupled to the isolated neutral conductor between the ignition module and the isolation transformer. Rather, Applicant's Figure 3 illustrates a phase conductor and a neutral conductor connected directly to an ignition module, and a ground conductor connected to a junction box, Cherry describes a cooking appliance including an ignition circuit having power supply lines coupled to a spark igniter module, and a ground line coupled to the spark igniter module, however, Cherry does not describe, or even suggest, that the ground line is coupled to a burner, and Michaels merely describes an isolation transformer having a primary and secondary winding. Accordingly, Claim 11 is patentable over Applicant's Figure 3 in view of Cherry and Michaels.

Claim 12 depends from independent Claim 11. When the recitations of Claim 12 are considered in combination with the recitations of Claim 11, Applicant respectfully submits that dependent Claim 12 is also patentable over Applicant's Figure 3 in view of Cherry and Michaels.

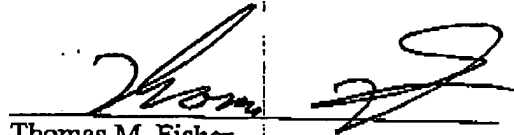
For the reasons set forth above, Applicant respectfully requests that the Section 103 rejections of Claims 1, 3-7, and 9-12 be withdrawn.

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In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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